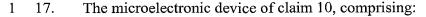
What is claimed is:

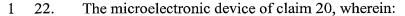
- 1 1. A microelectronic device comprising:
- a microelectronic die having a plurality of bond pads on an active surface
- 3 thereof, said microelectronic die being fixed within an opening in a package core; and
- 4 an interfacial metal layer deposited over said active surface of said
- 5 microelectronic die, said interfacial metal layer having at least one conductive element
- 6 that is conductively coupled to multiple bond pads on said active surface of said
- 7 microelectronic die to provide signal distribution between points within said
- 8 microelectronic die.
- 1 2. The microelectronic device of claim 1, comprising:
- at least one build up metallization layer deposited over said interfacial metal
- 3 layer, said at least one build up metallization layer being conductively coupled to said
- 4 interfacial metal layer through a dielectric layer having a plurality of via holes.
- 1 3. The microelectronic device of claim 1, wherein:
- 2 said at least one conductive element includes a first pad that is directly coupled
- 3 to a first bond pad on said active surface of said microelectronic die, a second pad that
- 4 is directly coupled to a second bond pad on said active surface of said microelectronic
- 5 die, and a conductive trace portion connecting said first and second pads.
- 1 4. The microelectronic device of claim 1, wherein:
- 2 said at least one conductive element receives a signal from a first bond pad on
- 3 said active surface of said microelectronic die during operation of said microelectronic
- 4 device and transfers said signal to a second bond pad on said active surface of said
- 5 microelectronic die.
- 1 5. The microelectronic device of claim 4, wherein:
- 2 said microelectronic die includes a clock source for providing a clock signal to
- 3 a first bond pad on said active surface, wherein said interfacial metal layer includes a

- 4 conductive element that is conductively coupled to said first bond pad and to a
- 5 plurality of other bond pads on said active surface to distribute said clock signal to said
- 6 plurality of other bond pads.
- 1 6. The microelectronic device of claim 1, wherein:
- 2 said package core is formed from a metal material.
- 1 7. The microelectronic device of claim 1, wherein:
- 2 said interfacial metal layer is deposited on a passivation layer of said
- 3 microelectronic die.
- 1 8. The microelectronic device of claim 1, comprising:
- a second microelectronic die fixed within said package core, wherein said
- 3 interfacial metal layer includes at least one conductive element that is conductively
- 4 coupled to both a first bond pad on said active surface of said first microelectronic die
- 5 and a second bond pad on an active surface of said second microelectronic die.
- 1 9. The microelectronic device of claim 1, wherein:
- 2 said microelectronic die is fixed within said opening in said package core using
- 3 an encapsulation material.
- 1 10. A microelectronic device comprising:
- at least one microelectronic die having a plurality of bond pads on an active
- 3 surface thereof and a passivation layer covering said active surface, said passivation
- 4 layer having a plurality of openings in locations corresponding to said plurality of bond
- 5 pads, said at least one microelectronic die being fixed within a package core; and
- 6 an interfacial metal layer over said passivation layer, said interfacial metal layer
- 7 having a plurality of separate conductive elements including at least one conductive
- 8 element that is conductively coupled to multiple bond pads on said at least one
- 9 microelectronic die through corresponding openings in said passivation layer.

- 1 11. The microelectronic device of claim 10, wherein:
- 2 said at least one conductive element on said interfacial layer receives a signal
- 3 from a first of said multiple bond pads during operation of said microelectronic device
- 4 and distributes said signal to each other of said multiple bond pads.
- 1 12. The microelectronic device of claim 10, wherein:
- 2 said at least one conductive element on said interfacial layer is conductively
- 3 coupled to a first external contact of said microelectronic device through said
- 4 metallization layer.
- 1 13. The microelectronic device of claim 12, wherein:
- 2 said at least one conductive element on said interfacial layer receives a signal
- 3 from said first external contact during operation of said microelectronic device and
- 4 distributes said signal to said multiple bond pads in response thereto.
- 1 14. The microelectronic device of claim 10, wherein:
- 2 said at least one microelectronic die includes a first microelectronic die and a
- 3 second microelectronic die, wherein said at least one conductive element on said
- 4 interfacial layer is conductively coupled to both a first bond pad on said first
- 5 microelectronic die and a second bond pad on said second microelectronic die.
- 1 15. The microelectronic device of claim 14, wherein:
- 2 said at least one conductive element on said interfacial layer receives a signal
- 3 from said first bond pad on said first microelectronic die during operation of said
- 4 microelectronic device and delivers said signal to said second bond pad on said second
- 5 microelectronic die.
- 1 16. The microelectronic device of claim 10, wherein:
- 2 said interfacial metal layer includes a first portion overlapping said at least one
- 3 microelectronic die and a second portion overlapping said package core.



- 2 a dielectric layer deposited on said interfacial metal layer, said dielectric layer
- 3 having a plurality of via holes in locations corresponding to selected conductive
- 4 elements on said interfacial metal layer.
- 1 18. The microelectronic device of claim 17, comprising:
- 2 a metallization layer deposited on said dielectric layer, said metallization layer
- 3 having conductive elements that are conductively coupled to said selected conductive
- 4 elements of said interfacial metal layer through said plurality of via holes in said
- 5 dielectric layer.
- 1 19. The microelectronic device of claim 18, wherein:
- 2 said metallization layer includes a first portion overlapping said at least one
- 3 microelectronic die and a second portion overlapping said package core.
- 1 20. A microelectronic device comprising:
- 2 a package core;
- a first microelectronic die fixed within said package core, said first
- 4 microelectronic die having bond pads on an active surface thereof;
- a second microelectronic die fixed within said package core, said second
- 6 microelectronic die having bond pads on an active surface thereof; and
- an interfacial metal layer deposited over said first and second microelectronic
- 8 dice, said interfacial metal layer having a first conductive element that is conductively
- 9 coupled to both a first bond pad on said first microelectronic die and a second bond pad
- 10 on said second microelectronic die.
- 1 21. The microelectronic device of claim 20, wherein:
- 2 said first conductive element is conductively coupled to multiple bond pads on
- 3 said second microelectronic device.



- 2 said first conductive element has a first portion on a passivation layer of said
- 3 first microelectronic die and a second portion on a passivation layer of said second
- 4 microelectronic die.
- 1 23. The microelectronic device of claim 20, wherein:
- 2 said first and second microelectronic dice are fixed within a common opening
- 3 in said package core.
- 1 24. The microelectronic device of claim 20, wherein:
- 2 said first and second microelectronic dice are each fixed within a separate
- 3 opening in said package core.
- 1 25. The microelectronic device of claim 20, wherein:
- 2 said first and second microelectronic dice are fixed within said package core
- 3 using an encapsulation material.
- 1 26. The microelectronic device of claim 20, wherein:
- 2 said first microelectronic die includes a signal source to provide a signal to said
- 3 first bond pad during operation of said microelectronic device, wherein said first
- 4 conductive element of said interfacial metal layer transfers said signal from said first

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5 bond pad to said second bond pad.